AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computer implemented method of determining a driveline inertia of a vehicle driveline resulting from an oscillatory speed effect in a vehicle driveline configuration, the driveline including a driveline component rotationally coupled to a propshaft at a non-zero working angle using a universal joint, the method comprising:

entering measurements of ~~for~~ the vehicle driveline configuration into a graphical user interface program, wherein the entered measurements of the driveline configuration includes measurements indicative of working angle between the propshaft and the driveline component; ~~and~~

determining an oscillatory speed effect of the vehicle driveline component based on the entered measurements;

determining a driveline inertia resulting from an oscillatory speed effect of the vehicle driveline by using ~~based on the entered measurements, wherein the oscillatory speed effect is based upon~~, at least in part, ~~a component angle of a universal joint~~ the rotational speed of the driveline component, the working angle between the driveline component and the propshaft, the inertia of the driveline component, and the inertia of the propshaft; and

providing an output indicative of the driveline inertia in a tangible medium.

2. (Previously Presented) The method of Claim 1, further including the step of selecting a representative vehicle driveline configuration from a plurality of driveline configurations prior to entering measurements of the vehicle driveline configuration into the graphical user interface program.

3. (Previously Presented) The method of Claim 1, wherein the graphical user interface program includes a corrective mode for enabling a user to interactively change the entered measurements of the vehicle driveline configuration.

4. (Original) The method of Claim 1, further including the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline configuration.

5. (Previously Presented) The method of Claim 1, further including the step of printing results from the determination of the driveline inertia.

6. (Previously Presented) The method of Claim 1, further including the step of saving results from the determination of the driveline inertia as an image file.

7. (Currently Amended) A computer implemented method of diagnosing ~~and correcting~~ driveline angles and lengths of components of a vehicle driveline, the driveline including a driveline component rotationally coupled to a propshaft at a non-zero working angle using a universal joint, the method comprising:

selecting a representative vehicle driveline from a plurality of saved driveline configurations;

entering measurements of the vehicle driveline into a graphical user interface program; ~~and~~

determining a driveline inertia resulting from an oscillatory speed effect in the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components, and wherein the driveline inertia is determined, at least in part, by using the rotational speed of the driveline component, the working angle between the driveline component and the propshaft, and the inertia of the propshaft; and

providing an output indicative of the driveline inertia in a tangible medium.

8. (Canceled)

9. (Original) The method of Claim 7, further including the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline.

10. (Previously Presented) The method of Claim 7, further including the step of printing results from the determination.

11. (Previously Presented) The method of Claim 7, further including the step of saving results from the determination as an image file.

12. (Currently Amended) A computer implemented method of determining a driveline inertia ~~an oscillatory speed effect~~ in a desired vehicle driveline configuration, the driveline including a driveline component rotationally selectively coupled to a propshaft at a non-zero working angle using a universal joint, the method comprising :

selecting ~~a~~ the desired vehicle driveline configuration from a plurality of driveline configurations;

entering measurement data for the desired vehicle driveline configuration;

determining a driveline inertia resulting from an oscillatory speed effect of the desired vehicle driveline configuration based on the entered measurements and wherein the driveline inertia is determined, at least in part, by using the rotational speed of the driveline component and the working angle between the driveline component and the propshaft, as generally represented by the Equation:

$$T = \left(\frac{RPM^2}{299356} \right) I_I \alpha_8^2$$

where T is driveline inertia,

RPM is the rotational speed of the driveline component,

I_I is the inertia of the propshaft,

α_8 is the working angle between the driveline component and the propshaft (rad), and

299356 is a conversion factor for RPM^2 to rad/sec;

and

displaying a value representative of the driveline inertia ~~oscillatory speed effect~~ of the desired vehicle driveline configuration.

13. (Currently Amended) The method of Claim 12, further including the step of enabling a user to interactively change the entered measurements of the desired vehicle driveline configuration to determine the driveline inertia ~~oscillatory speed effect~~ of ~~the~~ a changed vehicle driveline configuration.

14. (Previously Presented) The method of Claim 12, further including the step of printing a worksheet to aide a user in entering of the measurements for the desired vehicle driveline configuration.

15. (Currently Amended) The method of Claim 12, further including the step of printing results from the determination the driveline inertia ~~oscillatory speed effect~~ for the desired vehicle driveline configuration.

16. (Currently Amended) The method of Claim 12, further including the step of saving results from the determination of the driveline inertia ~~oscillatory speed effect~~ for the desired vehicle driveline configuration as an image file.

17. (Previously Presented) The method of Claim 1, further comprising selecting a representative vehicle driveline from a plurality of saved driveline configurations, wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline.

18. (Previously Presented) The method of Claim 7, wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline.

19. (Currently Amended) The method of Claim 12, wherein the oscillatory speed effect contributes to ~~is~~ a drive inertia.

20. (Currently Amended) The method of Claim 12, wherein the oscillatory speed effect contributes to ~~is~~ a coast inertia.

21. (Canceled).

22. (Canceled)

23. (Currently Amended) The method of claim 1, wherein determining the oscillatory speed effect of the driveline configuration includes determining the oscillatory speed effect of the driveline configuration based upon, at least in part, the inertia of ~~a~~ the propshaft.

24. (Currently Amended) The method of claim 1, further comprising

reconfiguring the driveline to a second driveline configuration;

entering measurements of the second driveline configuration into the ~~microprocessor based~~ graphical user interface program, wherein entering measurements of the second driveline configuration includes entering measurements of ~~the second driveline configuration,~~ an angle of the propshaft relative to a reference plane and an angle of the driveline component relative to the reference plane; and

determining an oscillatory speed effect of the second driveline configuration based upon the entered measurements of the second driveline configuration.

25. (Canceled)

26. (Currently Amended) The method of claim 1, wherein determining the oscillatory speed effect of the driveline configuration includes determining the oscillatory speed effect of the driveline configuration based upon, at least in part, ~~the~~ a rotational speed of ~~a~~ the propshaft.

27. (Currently Amended) The method of claim 7, further comprising enabling a user to interactively change the entered measurements of the vehicle driveline to determine ~~one of the torsional acceleration and~~ the changed driveline inertia of the vehicle driveline.

28. (New) The method of claim 1, wherein, the driveline inertia is determined, at least in part, by the Equation $$T_D = \left(\frac{RPM^2}{299356}\right)\left[I_1\alpha_1^2 + I_2\left(\alpha_1^2 \pm \alpha_2^2\right)\right]$$

where:

T_D is drive inertia,

RPM is the rotational speed of the driveline component,

I_1 is the inertia of the driveline component,

I_2 is the inertia of the propshaft,

α_1 is the working angle between the driveline component and a reference plane (rad),

α_2 is the working angle between the propshaft and the reference plane (rad), and

299356 is a conversion factor for RPM^2 to rad/sec^2.